

| | Type | L # | Hits | Search Text | DBs | Time Stamp |
|---|------|-----|--------|---|-------|---------------------|
| 1 | BRS | L1 | 49 | ("4545073" "4249138" "5481223" "5719971" "4282742" "5937335" "4247834" "4458164" "4459566" "4484221" "4994765" "5247215" "5278522" "5304955" "5311318" "5650738" "4330760" "4868891" "4516170" "4783849" "5706315" "4334317" "4603435" "4623890" "4633511" "5847612" "5434937" "5652534" "4348757" "4525668" "4846540" "5627529" | USPAT | 2003/07/26 22:54 |
| 2 | IS&R | L2 | 2153 | ((455/260) or (455/76) or (455/77) or (455/84) or (455/85) or (455/86) or (455/87) or (455/115.1) or (455/180.3) or (455/190.1) or (455/192.1) or (455/207) or (455/208) or (455/209)).CCLS. | USPAT | 2003/07/26 23:18 |
| 3 | BRS | L3 | 234088 | (CMOS OFFSET PHASE LOCK LOOP OR CMOS OFFSET PLL LOOP) AND (CMOS SUBSTRATE) | USPAT | 2003/07/26 23:21 |
| 4 | BRS | L4 | 14 | 3 AND (CMOS ADJ PHASE ADJ LOCK ADJ LOOP) | USPAT | 2003/07/26 23:21 |
| 5 | BRS | L5 | 13 | 4 AND (VCO DOWN CONVERSION MIXER) AND (LOW CLOCK FREQUENCY) | USPAT | 2003/07/26 23:23 |
| 6 | BRS | L9 | 16279 | 3 AND (SUBSYSTEM MIXER) | USPAT | 2003/07/26 23:24 |
| 7 | BRS | L11 | 5 | 10 AND (BANDPASS FILTER) AND (LOOP SAME FILTER) | USPAT | 2003/07/26 23:25 |

| | Type | L # | Hits | Search Text | DBs | Time Stamp |
|----|------|-----|------|--|-------|---------------------|
| 8 | BRS | L14 | 213 | 9 AND PREAMPLIFIER AND MIXER | USPAT | 2003/07/26 23:27 |
| 9 | BRS | L15 | 1 | 14 AND (PHASE ADJ DETECTOR) AND (FREQUENCY ADJ CONVERSION) | USPAT | 2003/07/26 23:27 |
| 10 | BRS | L10 | 5 | 5 AND (PHASE ADJ DETECTOR) | USPAT | 2003/07/26 23:48 |
| 11 | BRS | L18 | 14 | 3 AND (CMOS ADJ PHASE ADJ LOCK ADJ LOOP) | USPAT | 2003/07/26 23:49 |

Titles of Most Frequently Occurring Classifications of Patents Returned
From A Search of 09698498 on November 13, 2002

- 3 331/1A (1 OR, 2 XR)
Class 331 : OSCILLATORS
331/1R AUTOMATIC FREQUENCY STABILIZATION USING A PHASE
OR FREQUENCY SENSING MEANS
331/1A .AFC with logic elements
- 3 348/731 (3 OR, 0 XR)
Class 348 : TELEVISION
348/725 RECEIVER CIRCUITRY
348/731 .Tuning
- 3 455/76 (0 OR, 3 XR)
Class 455 : TELECOMMUNICATIONS
455/73 TRANSMITTER AND RECEIVER AT SAME STATION (E.G.,
TRANSCEIVER)
455/75 .With frequency stabilization (e.g., automatic
frequency control)
455/76 ..Synthesizer
- 2 323/267 (0 OR, 2 XR)
Class 323 : ELECTRICITY: POWER SUPPLY OR REGULATION
SYSTEMS
323/234 OUTPUT LEVEL RESPONSIVE
323/265 .Using a three or more terminal semiconductive
device as the final control device
323/267 ..Including plural loads commonly controlled
- 2 323/283 (2 OR, 0 XR)
Class 323 : ELECTRICITY: POWER SUPPLY OR REGULATION
SYSTEMS
323/234 OUTPUT LEVEL RESPONSIVE
323/265 .Using a three or more terminal semiconductive
device as the final control device
323/282 ..Switched (e.g., switching regulators)
323/283 ...Digitally controlled
- 2 326/30 (0 OR, 2 XR)
Class 326 : ELECTRONIC DIGITAL LOGIC CIRCUITRY
326/21 SIGNAL SENSITIVITY OR TRANSMISSION INTEGRITY
326/30 .Bus or line termination (e.g., clamping,
impedance matching, etc.)

2 326/86 (1 OR, 1 XR)

Class 326 : ELECTRONIC DIGITAL LOGIC CIRCUITRY

326/62 INTERFACE (E.G., CURRENT DRIVE, LEVEL SHIFT,
ETC.)

326/82 .Current driving (e.g., fan in/out, off chip
driving, etc.)

326/83 ..Field-effect transistor

326/86 ...Bus driving

2 327/115 (0 OR, 2 XR)

Class 327 : MISCELLANEOUS ACTIVE ELECTRICAL NONLINEAR
DEVICES, CIRCUITS, AND SYSTEMS

327/100 SIGNAL CONVERTING, SHAPING, OR GENERATING

327/113 .Frequency or repetition rate conversion or
control

327/114 ..Of output rectangular waveform

327/115 ...Frequency division

2 327/117 (0 OR, 2 XR)

Class 327 : MISCELLANEOUS ACTIVE ELECTRICAL NONLINEAR
DEVICES, CIRCUITS, AND SYSTEMS

327/100 SIGNAL CONVERTING, SHAPING, OR GENERATING

327/113 .Frequency or repetition rate conversion or
control

327/117 ..Frequency division

2 327/231 (0 OR, 2 XR)

Class 327 : MISCELLANEOUS ACTIVE ELECTRICAL NONLINEAR
DEVICES, CIRCUITS, AND SYSTEMS

327/100 SIGNAL CONVERTING, SHAPING, OR GENERATING

327/231 .Phase shift by less than period of input

2 327/237 (2 OR, 0 XR)

Class 327 : MISCELLANEOUS ACTIVE ELECTRICAL NONLINEAR
DEVICES, CIRCUITS, AND SYSTEMS

327/100 SIGNAL CONVERTING, SHAPING, OR GENERATING

327/231 .Phase shift by less than period of input

327/237 ..Variable or adjustable

2 331/117FE (0 OR, 2 XR)

Class 331 : OSCILLATORS

331/107R SOLID STATE ACTIVE ELEMENT OSCILLATOR

331/108R .Transistors

331/117R ..L-C type

331/117FE ...Field-effect transistor active element

- 2 331/16 (0 OR, 2 XR)
Class 331 : OSCILLATORS
331/1R AUTOMATIC FREQUENCY STABILIZATION USING A PHASE
OR FREQUENCY SENSING MEANS
331/16 .Tuning compensation
- 2 331/172 (1 OR, 1 XR)
Class 331 : OSCILLATORS
331/172 WITH SYNCHRONIZING, TRIGGERING OR PULSING
CIRCUITS
- 2 331/1R (1 OR, 1 XR)
Class 331 : OSCILLATORS
331/1R AUTOMATIC FREQUENCY STABILIZATION USING A PHASE
OR FREQUENCY SENSING MEANS
- 2 331/34 (0 OR, 2 XR)
Class 331 : OSCILLATORS
331/1R AUTOMATIC FREQUENCY STABILIZATION USING A PHASE
OR FREQUENCY SENSING MEANS
331/34 .Particular frequency control means
- 2 331/57 (1 OR, 1 XR)
Class 331 : OSCILLATORS
331/57 RING OSCILLATORS
- 2 377/48 (0 OR, 2 XR)
Class 377 : ELECTRICAL PULSE COUNTERS, PULSE DIVIDERS, OR
SHIFT REGISTERS: CIRCUITS AND SYSTEMS
377/27 SYSTEMS
377/47 .Pulse multiplication or division
377/48 ..Multiplication or division by a fraction
- 2 455/182.3 (0 OR, 2 XR)
Class 455 : TELECOMMUNICATIONS
455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY
CONVERTER
455/150.1 .Signal selection based on frequency (e.g.,
tuning)
455/179.1 ..Channel or station selection
455/182.3 ...Fine tuning
- 2 455/333 (0 OR, 2 XR)
Class 455 : TELECOMMUNICATIONS
455/130 RECEIVER OR ANALOG MODULATED SIGNAL FREQUENCY

CONVERTER

- 455/313 .Frequency modifying or conversion
- 455/323 ..Particular frequency conversion structure or
circuitry
- 455/333 ...Transistor or integrated circuit

2 455/86 (2 OR, 0 XR)

Class 455 : TELECOMMUNICATIONS

455/73 TRANSMITTER AND RECEIVER AT SAME STATION (E.G.,
TRANSCEIVER)

455/84 .With a common signal processing stage

455/86 ..Transmitter oscillator used as local
oscillator

2 714/716 (2 OR, 0 XR)

Class 714 : ERROR DETECTION/CORRECTION AND FAULT
DETECTION/RECOVERY

714/699 PULSE OR DATA ERROR HANDLING

714/712 .Transmission facility testing

714/715 ..Test pattern with comparison

714/716 ...Loop-back

Most Frequently Occurring Classifications of Patents Returned
From A Search of 09698498 on November 13, 2002

Original Classifications

3 348/731
2 323/283
2 327/237
2 455/86
2 714/716

Cross-Reference Classifications

3 455/76
2 323/267
2 326/30
2 327/115
2 327/117
2 327/231
2 331/117FE
2 331/16
2 331/1A
2 331/34
2 377/48
2 455/182.3
2 455/333

Combined Classifications

3 331/1A
3 348/731
3 455/76
2 323/267
2 323/283
2 326/30
2 326/86
2 327/115
2 327/117
2 327/231
2 327/237
2 331/117FE
2 331/16
2 331/172
2 331/1R
2 331/34
2 331/57
2 377/48

2 455/182.3
2 455/333
2 455/86
2 714/716

PLUS Search Results for S/N 09698498, Searched November 13, 2002

4545073
4249138
5481223
5719971
4282742
5937335
4247834
4458164
4459566
4484221
4994765
5247215
5278522
5304955
5311318
5650738
4330760
4868891
4516170
4783849
5706315
4334317
4603435
4623890
4633511
5847612
5434937
5652534
4348757
4525668
4846540
5627529
4390963
4455534
4472815
4631733
4862450
4931672
5274766
5382838
5455544
5661416
5754560

6041225

6218817

6218817

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4608458

4786903

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